ABSTRACT OF THE DISCLOSURE

An exemplary embodiment of the invention relates to a method of using pattern vectors for image coding and decoding. The method comprises converting a block of image data into a set of transform coefficients, quantizing the transform coefficients such that a number of the coefficients become zero, constructing a single entity or bit vector indicating which coefficients are non-zero, coding the single entity or bit vector as an integer using an adaptive, semi-adaptive or non-adaptive arithmetic coder, coding the values of the coefficients in any fixed order, using an adaptive, semi-adaptive or non-adaptive arithmetic coder, or some other coder, and coding all coefficients except the zero coefficients. The system and method of decoding data relate to the corresponding hardware and process steps performed by the decoder when decoding a bitstream coded as described herein.